ABSTRACT OF THE DISCLOSURE

The present invention discloses the cDNA sequence and the expressed amino acid sequence of a sodium channel α subunit, termed hH1b. A specific mutation in hH1b has been shown to display a different phenotype in relation to a human heart disease than other known human sodium channel α subunits with corresponding mutations. The present inventions provides new tools to design or identify new diagnostic and treatment strategies or agents for sodium channel related diseases or conditions.